Date: Sat, 12 Jun 93 04:30:02 PDT
From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>
Errors-To: Packet-Radio-Errors@UCSD.Edu
Reply-To: Packet-Radio@UCSD.Edu
Precedence: Bulk
Subject: Packet-Radio Digest V93 #166
To: packet-radio

Packet-Radio Digest Sat, 12 Jun 93 Volume 93 : Issue 166

Today's Topics:
Digital microwave project
Kamtronic KPC-3
SHIPBOARD RADIO OFFICERS

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>
Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 11 Jun 93 23:38:39 GMT
From: usc!wupost!csus.edu!netcom.com!netcomsv!orchard.la.locus.com!prodnet.la.locus.com!lando.la.locus.com!dana@network.UCSD.EDU
Subject: Digital microwave project
To: packet-radio@ucsd.edu

In article <C8FqJs.1Hr@zeno.fit.edu> ree88132@zach.fit.edu (Keith Ledig) writes:
>I am about to embark on a project that envolves the use of microwaves
>to transfer digital data. Not being very experienced in microwave
>technology I have a few questions to ask the microwave gurus. First,
>a little background: This project will link two computers together
>through their serial ports at initially 9600 baud but later at speeds
>of up to 115K baud. The eventual goal is to use SLIP through this
>connection to get onto the network. The distance will be approx.
>10 to 15 miles.
>
>1. Where is a good place to get cheap microwave components from?

I don't know offhand, but you can contact Christopher Killian of
Carrier Communications at (805) 945-5448. He sells new microwave gear

and also sells the odd piece of used gear. Chris mentioned the average price for a used digital microwave link like you describe is $10k+; you might be able to build a system out of surplus pieces for less. Chris will also be able to tell you some of the suppliers of microwave gear, which you can use to gain more information.

>2. What frequencies can be used for this microwave link? HAM?

For the 10-15 mile range, you would probably use 18 GHz. Lower frequencies would exhibit increased range but allocations are harder to get.

> Are there allocated frequencies for such experimentation and
> do they require a license?

Commercial point-point links are described in the Code of Federal Regulations (CFR) Volume 47, Part 94. The eligibility for these links is described in Part 90. I would suggest you go to a library and research CFR 47 regarding the commercial and experimental licenses.

>3. If I want full duplex, do I need 2 antennas at each end or can
> one serve as a bidirectional with 2 separate frequencies used?

One antenna should be fine.

>4. Can one antenna be used to transmit AND receive (related to question
> 3 and 5).

Yes.

>6. Has this been done before with personal/amateur setup?

Commercial users do this all the time.

Good luck!

--
* Dana H. Myers KK6JQ | Views expressed here are *
* (310) 337-5136 | mine and do not necessarily *
* dana@locus.com DoD #466 | reflect those of my employer
*
* This Extra supports the abolition of the 13 and 20 WPM tests *

Date: 12 Jun 1993 08:33:12 GMT
From: pacbell.com!barrnet.net!noc.usfca.edu!noc.usfca.edu!callis@network.UCSD.EDU
Subject: Kamtronic KPC-3

To: packet-radio@ucsd.edu

Does anyone know of any nifty mods to go with the KPC-3 Kamtronic TNC. I
have been collecting all mods for radios and other devices... Making it
real neat and eventually placing out here on the net for everyone to get
a look at... I wouldn't know what a strictly TNC/WE-Fax could be mod'd
to do, but I am sure that someone has figured something out...

--
```
*******************************************************************
* Kim C. Callis                                                   *
* Univ. of San Francisco, San Francisco, CA                       *
* EMAIL: callis@usfca.edu or callis@dons.ac.usfca.edu             *
*******************************************************************
```
DISCLAIMER: As long as nothing I say attempts to represent the
views of the Univ. of San Francisco, they could care less what I
have to say. Meaning that anything said, like it or not, is strictly
my own personal opinion and views.

Date: Sat, 12 Jun 93 08:44:15 GMT
From: dog.ee.lbl.gov!newshub.nosc.mil!humu!pegasus!bcollars@network.UCSD.EDU
Subject: SHIPBOARD RADIO OFFICERS
To: packet-radio@ucsd.edu

I am a Navy Technician who plans to become a Shipboard Radio Officer. Any of
youold "sparks" out there who would like to share some insight into this career
path please contact me at: bcollars@pegasus.com   Thanx a million !!!!!!

:qw

: wq
    :::

Date: Sat, 12 Jun 1993 02:43:00 GMT
From: usc!wupost!news.miami.edu!usenet.ufl.edu!zeno.fit.edu!zach.fit.edu!
ree88132@network.UCSD.EDU
To: packet-radio@ucsd.edu

References <dmcreyno-110693082520@134.5.142.4>, <C8Gr62.5Lr@zeno.fit.edu>,
<dmcreyno-110693144640@134.5.142.4>0
Subject : Re: Digital microwave project

In article <dmcreyno-110693144640@134.5.142.4> dmcreyno@hercii.lasc.lockheed.com
(David McReynolds) writes:
>In article <C8Gr62.5Lr@zeno.fit.edu>, ree88132@zach.fit.edu (Keith Ledig)
>wrote:
>>
>> My intent of this question is exactly as stated. Can I use one
>> dish/horn as a transmitter AND a receiver at the same time
>> simultaneously. The reason I ask is because we have a couple
>> horns here that are either a transmitter or a receiver. The
>> diode in the center of the horn does only one job.
>>
>>
>Well, if your horns have diodes then you probably will need 2 xmit and 2
>rcv antennas to do full duplex. I'm sorry, I thought you might have enough
>common sense to realize that you cannot transmit through a receive only
>antenna and you cannot receive through a transmit only antenna.
>

Well, cellular phone is close to microwave (upper mhz range) and
those little antennas can transmit and receive simultaneously.

I also thought they had dish antennas that could trandmit and receive
(on separate frequencies or different planes of polarization).
and same for horns.

Date: 12 Jun 93 02:42:03 GMT
From: usc!sol.ctr.columbia.edu!news.kei.com!ub!dsinc!wells!beyonet!
steve@network.UCSD.EDU
To: packet-radio@ucsd.edu

References <1993Jun9.043502.489@kd4nc.uucp>, <C8Et1q.n4H@zero.com>,
<1993Jun11.153200.15661@kd4nc.uucp>
Subject : Re: PK-232 DCD open squelch mod wanted

You have a pk-232 so if you have the threshold knob on the front left
side of the unit you can use open squelch without having to play with
the audio. The threshold knob varies the decode threshold where as
on the pk-88 the threshold is fixed and thats why I have to use the
vol control to make it flicker the dcd. Too much audio will make it
stay on and it won't be able to transmit.

Steve

--
|Stephen Urich| Internet:steve@zero.com |"Cattle mutilations |
|NIC: SU2 | UUCP:uunet!beyonet!steve |are up!" --Sneakers |

```
|ARS: WB3FTP  | Packet:WB3FTP@WB3FTP.#EPA.PA.USA.NOAM  |ax25<->PBBS<->IPGATE|
|Bensalem, PA |Radio:wb3ftp@wb3ftp.ampr.org[44.80.8.44]|TCP/IP-FTP-SMTP-UNIX|
```

End of Packet-Radio Digest V93 #166
****